



NQAC

Nestlé Quality Assurance Center  
Dublin

# Technical Datasheet

**Analysis Name:** Quaternary Ammonium Compounds by LC-MS/MS

**Method Number:** LI-00.044

**Scope of Application:** The method has been validated for powdered infant formula (milk, powder), baby food, chemical salt, cereal, fresh milk (milk, fresh) and carrot (high water content, fruit/vegetables). The LoQs for all QACs have been set at 0.010 mg/kg for these three matrices.

**Description:** An in-house method for the quantitative determination of seven quaternary ammonium compounds (QACs, including DDAC, BAC-8, BAC-10, BAC-12, BAC-14, BAC-16 and BAC-18) in foods by LC-MS/MS.

**Sample Weight Required:** Minimum 100 g

**Analytical Platform:** LC-MS/MS

**Special Information:** A representative laboratory sample (minimum 100 g) should be sent to the laboratory. It should not have been damaged or changed during transport or storage.

Analyte Reported	Alias	Unit of Measure	Limit of Quantification	Reproducibility
Benzyl dimethyloctyl ammonium chloride	BAC-8	mg/kg	0.010	≤20%
Benzyl dimethyldecyl ammonium chloride	BAC-10	mg/kg	0.010	≤20%
Benzyl dimethyldodecyl ammonium chloride	BAC-12	mg/kg	0.010	≤20%
Benzyl dimethyltetradecyl ammonium chloride	BAC-14	mg/kg	0.010	≤20%
Benzyl dimethylhexadecyl ammonium chloride	BAC-16	mg/kg	0.010	≤20%
Benzyl dimethylstearyl ammonium chloride	BAC-18	mg/kg	0.010	≤20%
Didecyl dimethyl ammonium chloride	DDAC	mg/kg	0.010	≤20%